

09/434008

Abstract

A teleradiology system provides the capability of rendering and studying of a remotely located volume data without requiring transmission of the entire data to the user's local computer. The system comprises: receiving station (300) under the control of a user (400); transmitting station (100); the connecting network (200); the user interface (32) with functionality of controlling volume data rendering, transmission, and display; and the interface with patient data source (10). The teleradiology system of the invention provides an integrated functionality of data transmission of current teleradiology systems and volume data rendering / visualization of current volume data rendering / visualization systems. The system may be readily used with an intranet, the internet (including the internet2) or via a direct dial-up using a telephone line with a modem, and can serve as an enterprise-wide PACS and may be readily integrated with other PACS and image distribution systems. Software of this system can be centrally installed and managed and can be provided to the user's local computer on an as-needed basis. Furthermore, the software for the user's computer is developed to use with standard web browser. This system provides a secure, cost-effective, widely-accessible solution for data rendering and visualization. It provides a suitable image distribution method for medical image data, for medical data repository, and for the electronic medical record (or the computerized patient record). It allows healthcare providers (e.g., radiologists, other physicians, and supporting staffs) to render and study remotely located patient data at the locations of their choices.